

Environmental Law Awareness as Social Capital Strategic in Unconventional Tin Mining Activities in the Bangka Belitung Islands

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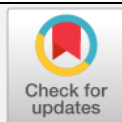
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ABSTRACT

Since ancient times, the Bangka Belitung Islands have been known as one of the world's largest tin producers. Mining has taken place massively since tin is no longer a strategic commodity, marked by the issuance of several policies that grant permits to anyone to mine tin. Mining, which was originally mostly carried out on land, over time and needed in the economic aspect, has also been carried out at sea. As a result, mining, mostly carried out without permits, impacts environmental damage and other legal and social aspects. In fact, from a regulatory standpoint, the government has issued laws and regulations that serve as references in environmental management, including its relation to the mining sector. This study aims to determine awareness of environmental law in unconventional tin mining activities in the Bangka Belitung Islands. Judging from its type, this research is analytical descriptive research, describing an object through which the data obtained is processed and analyzed to conclude. The research was conducted in all regencies/municipalities in the Bangka Belitung Islands. From the research that has been done, the result is that even though they know, the fact is that most of the mining is carried out without permits, plus there has never been, and there has been no socialization regarding tin mining permits. In addition, most of them also know that their mining activities damage the environment and admit that mining activities damage the habitat of living things. This means that, based on the theories and concepts used, miners are more

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towards ecocentrism because they make nature an object, not ecocentrism, which pays attention to environmental sustainability.

Keywords: *Environmental Law; Legal Awareness; Tin Mining*

1. Introduction

Tin mining activities that started hundreds of years ago, even today, are part of the long history of the Bangka Belitung Islands (Sutedjo, 2015). This area is one of Indonesia's largest tin-producing regions, which not only fulfills tin needs nationally but is also the world's leading tin producer (Darwance & Haryadi, 2019). Fitch Solution stated that Indonesia is the world's second-largest tin mining producer. In 2021, the total production of Indonesian tin mines was 83,000 tonnes. This amount equals 26% of world mining production (Andrianto, 2022). Tin mining is inseparable from world market prices and is influenced by supply and demand. Tin went global in the 19th century by discovering giant deposits in Bolivia, Nigeria, South Africa, Great Britain, Australia, Malaysia, China, Thailand, and Indonesia. At that time, tin was needed by the world, especially Europe, which was in the industrial era, to manufacture cans, plates, glasses, water containers, and iron coatings (Irzon, 2021).

Normatively, the landscape of tin mining management in the Bangka Belitung Islands cannot be separated from the reforms that undermined the New Order regime on May 21, 1998. One of the demands for reform that led to an amendment to The 1945 Constitution of the Republic of Indonesia, one of which gave birth to Articles 18, Article 18A, and Article 18B, which became the basis for implementing local autonomy, also had an impact on the governance of tin mining. Law of the Republic of Indonesia Number 5 of 1974 concerning Principles of Local Government, which was initially used as the basis for the administration of local government, then underwent several changes. The last that is now in effect is Law Number 9 of 2015 concerning the Second Amendment to Law Number 23 2014 concerning Local Government.

In 1999, the government, among others, issued a Decree of the Minister of Industry and Trade of the Republic of Indonesia Number 146/MPP/Kep/4/1999 concerning Amendment to the Attachment to the Decree of the Minister of Industry and Trade of the Republic of Indonesia Number 558/MPP/KEP/12/1998 concerning General Provisions in the Export Sector, one of which is revoking tin's status as a strategic commodity, and Decree of the Minister of Industry and Trade of the Republic of Indonesia Number 294/MPP/Kep/10/2001 concerning Revocation of Decree of the Minister of Industry and Trade of the Republic of Indonesia Number 146/MPP/KEP/4/1999 and Determination of Regulated, Supervised Goods and Prohibited Export, which does not contain the trading system of tin commodities as regulated, supervised and prohibited for export. In the context of tin mining in the Bangka Belitung Islands, this is the starting point for the chaos of tin management, which impacts environmental damage. Moreover, not too far apart, the Law of the Republic of Indonesia Number 22 of 1999 concerning Local Government was issued, which brought the spirit of local autonomy, which local government to be used as a momentum to expand its power and authority.

Since the issuance of Law of the Republic of Indonesia Number 23 of 2014 concerning Local Government, regency/municipality governments no longer have authority to administer forestry, maritime affairs, and energy and mineral resources, including in terms of issuing

mining permits, shifting to the central government and provincial governments through the provisions of Article 14 paragraph (1) Law of the Republic of Indonesia Number 23 of 2014 (Wulandari & Fahrozi, 2021). It's just that, and what has happened in the Bangka Belitung Islands since the area was given authority and permitted anyone to mine tin, the problem has become complex and challenging.

During the ten years of the regional autonomy era, exploiting the mining of natural resources in the Bangka Belitung Islands Province was almost out of control. The impact of environmental damage, smuggling, and corruption of natural resources is rampant and unstoppable, eventually leading the Bangka Belitung Islands Province to its current bleak times (Yulianti et al., 2020). Mining in this context is a potential disaster with associated hazards, including changes in the landscape, erosion and sedimentation, disturbance of slope stability, loss of flora-fauna habitat, coastal abrasion, changes in land use, decreased water quality, and social unrest (Rusfiana & Hermawan, 2019). For example, tin mining project activities in the Matras beach area have had a negative impact on fish resources and the work of traditional fishermen because they have caused damage to the marine ecosystem. This cannot be separated from the issuance of the Bangka Belitung Provincial Regulation Number 3 of 2020 concerning the Management of Coastal Zone and Small Islands, which is the legal basis for granting marine management permits (Adrian & Hartanto, 2022).

When starting unconventional mining activities, the miners cleared the forest, either in the form of the original forest or forest reclamation from PT. Timah, then there is forest destruction. When carrying out mining activities that use water for spraying, this water, mixed with mud, flows into the rivers, and the river water, which was originally clean and clear, becomes cloudy. The river water flow into the sea carries silt sediments into the sea, disrupting the balance of ecosystems in the sea and destroying the beauty of the beach, which was originally white sand, turning gray-black and dirty (Ibrahim, 2015). Even though it has been put in order, mining activities like this are happening again. This shows the high economic dependence of some communities on tin mining (Haryadi et al., 2020). As a result, it negatively impacts the environment, including local varieties in this region (Darwance et al., 2022).

Some of the facts above show that, in general, in tin mining activities in the Bangka Belitung Islands, the community ignores aspects of environmental preservation as a part that should be made an important concern in efforts to balance the ecosystem and the social impacts that occur. This means that legal awareness of the environment is still low. Legally, several statutory provisions governing the environment are already relevant to be applied in mining activities, especially Law of the Republic of Indonesia Number 32 of 2009 concerning Environmental Protection and Management, which has so far been used to protect and manage the environment in Indonesia. Sectorally, in mining, environmental protection, and management, it has also been regulated in several provisions in Law of the Republic of Indonesia Number 4 of 2009 concerning Mineral and Coal Mining, some of which have been amended by Law of the Republic of Indonesia Number 23 of 2020.

Several research results have concluded that tin mining has various impacts, including environmental aspects. The impact of unconventional tin mining activities on the environment, including the water content under the former tin mining, which is contaminated with heavy metals, can cause several diseases, such as poisoning, cancer, and other diseases. In addition, pollution of the river flow causes water quality to become dirty and silt, increasing the area of critical land (Pirwanda & Pirngadie, 2015). Environmental damage is not only happening on land where forests are destroyed, dug holes are gaping filled with water which the locals call *kolong* (mining pit), which are breeding grounds for malaria mosquitoes, but also on beaches

which cause damage to the beauty of beaches which were originally clean white sand and clear water. Become dirty, and the seawater becomes cloudy due to the sludge content of mining waste that is carried by the river into the sea (Ibrahim, 2015). In addition to the environment, tin mining has negatively impacted society's social conditions (Erwana et al., 2016). At sea, tin mining has a labor impact on fishing activities (Adrian et al., 2021).

Every citizen is obligated to protect and control the environment if pollution occurs. Especially when carrying out a business/activity such as mining where it is clear that the medium is land, rivers, or seas that will have an impact (Haryadi et al., 2020). Thus, the quality of the environment depends on each individual's responsibility toward maintaining the environment. The sense of responsibility that each individual has to maintain, protect and preserve the environment needs to be developed, and this is a value that must be preserved and owned by each individual (Taufiq, 2014).

Since tin is no longer a strategic commodity, marked by several policies that grant anyone permission to mine tin, tin mining has taken place massively. Several data state that the result of tin mining carried out in almost all directions, both sea, and land, has caused several events closely related to ecological impacts. Until now, apart from environmental issues always present in every discussion about tin mining, the community remains loyal to being a miner. For the community, economic problems are the main problem. Therefore, it is important to examine the mining community's perception of environmental issues from their mining activities.

Soekanto states legal awareness is an awareness of the values contained in human beings regarding existing or expected laws (Soerjono, 1982). Concerning legal awareness, people can be classified into people who already know the law and people who are legally illiterate. A society that already knows is an educated and modern society that should be one that already knows the law. Meanwhile, legally illiterate people, namely people who do not know the legal material itself, are caused by a lack of information and knowledge (Mursidah, 2017). Legal awareness is expected to encourage someone to comply and carry out or not carry out what is prohibited and or what is ordered by law (Hasibuan, 2016). Individual legal feelings and legal beliefs in society, which are individual legal awareness, are the basis of community legal awareness (Usman, 2015).

The research was conducted to find out about the legal awareness of the tin mining community who have been mining in various areas in all regencies/municipalities in the Bangka Belitung Islands, namely Pangkalpinang, Bangka, West Bangka, Central Bangka, South Bangka, Belitung, and East Belitung. In each regency/municipality, several areas will be selected that have been known as areas with the most massive mining activities. Research also includes awareness of regulations governing mining and the environment, including the negative impacts of mining associated with environmental management and protection.

2. Research Methodology

This study is descriptive research, describing an object through which the data obtained is processed and analyzed to conclude (Sugiyono, 2009). The aim is to get an overview of miners' perceptions about the relationship between their activities and the impact of environmental damage and work safety. The research was conducted by conducting direct interviews with several respondents with mining backgrounds. There were 350 research respondents with details of 50 miners for each regency/municipality in the Bangka Belitung Islands. Respondents were not taken randomly or by probability sampling, which was determined by purposive sampling or based on certain criteria. Among them are tin miners in villages with massive

environmental damage areas. The primary data source is the main one used because the data is taken through a questionnaire prepared with enumerators conducting direct interviews. Although the data obtained is quantitative, the data is then processed and analyzed qualitatively. Quantitative data is used as the primary material to discover the real facts in implementation.

3. Overview of Mining Communities in the Bangka Belitung Islands

For a long time, tin has been an indispensable commodity for local communities in various forms (Indra, 2014), one of which is unconventional mining. The emergence of unconventional mining in the Bangka Belitung Islands is based on three factors: the decision of PT. Timah to subcontract part of its onshore tin mining projects to local entrepreneurs in the early 1990s, the fall in the price of pepper (*Piper nigrum* L) as the main agricultural commodity in Bangka in the late 1990s, and the separation of Bangka and Belitung Islands from South Sumatra Province became its province as a result of the implementation of the local autonomy policy. This then encourages people to open mining. Apart from mining because of economic needs, the community considers this a moment to escape the injustice that has been felt towards their natural wealth (Sulista, 2019). This is because, previously, tin could only be mined by certain companies that received permits from the government, namely PT. Timah and PT. Koba Tin, while the community may not mine at all (Ibrahim & Haryadi, 2013).

After tin mining activities were no longer the monopoly of certain companies, tin mining took place massively, including those without permits. Tin miners come not only from Bangka Island or Belitung Island but also from outside the region. They deliberately came to Bangka Island to become workers in tin mines (KOMPAS.com, 2022). In addition, the mining sector, which seems masculine, is only carried out by men as workers. It is also carried out by women and even children (Sulista, 2019).

The research was conducted on tin miners who conduct mining activities in other areas, not from their area of residence. For example, person A comes from Village B but mines in Village C or Village D, then moves to Village E, and so on. If averaged as a whole, the age of tin miners in the Bangka Belitung Islands Province is 33.6 percent aged 26-35 years and 32.9 percent aged 36-45 years. These two ages are the productive age for workers to work. Only East Belitung Regency has more young tin miners, those aged under 26 years. In South Bangka Regency, tin miners aged 26-35 and 36-45 dominate mining activities.

93.8 percent of tin miners in the Bangka Belitung Islands Province are men, and only 6.2 percent of women work. The regencies with the most women miners were Central Bangka Regency, 21.7 percent; West Bangka Regency, 15 percent; and Pangkalpinang City, 6.7 percent. Women's participation in the mining sector in the three regencies/cities is due to side jobs, high tin prices, and no alternative jobs.

88.09 percent of tin miners in the Bangka Belitung Islands Province are indigenous people or residents, and 11.91 percent are immigrants. Only Belitung Regency has 100 percent of tin miners are indigenous people. Regencies that have miners from other areas or migrants are West Bangka Regency (28.3 percent), Bangka and Central Bangka Regencies (21.7 percent), East Belitung Regency (6.7 percent), South Bangka Regency (3.3 percent) and Pangkalpinang City (1.7 percent). The reason migrants carry out mining activities is that the price of tin is rising, they have side jobs, and there are no alternative jobs.

On average, 40.7 percent of tin mining activities in the Bangka Belitung Islands Province are carried out for less than 12 months and 30.5 percent for more than 48 months. Mining activities carried out for less than 12 months amounted to 83.3 percent in the area of Bangka Regency,

East Belitung Regency by 53.2 percent, Pangkalpinang City by 48.4 percent, West Bangka Regency by 40.1 percent and South Bangka Regency 38, 4 percent. Whereas in Belitung Regency, 73.5 percent of mining activities were carried out for more than 48 months or four years, then in Central Bangka, it was 58.3 percent. How long this mining activity takes depends on the tin reserves at the mining point. If the tin supply is at a point that has already been excavated, miners tend to move to another place.

On average, 70.93 percent of the income of tin miners in the Bangka Belitung Islands Province is IDR2,000,000-IDR5,000,000. Meanwhile, 17.40 percent had more than IDR5,000,000, and 11.67 percent had less than IDR2,000,000. Miners earning above IDR5,000,000 tend to be miners who own their equipment and own mines or work for private mining companies. Meanwhile, those with an income of less than IDR2,000,000 tend to be freelance workers who work at mining sites. Workers with an IDR2,000,000-IDR5,000,000 are variations of the two types of labor previously mentioned. The size of the income from tin mining is also determined by the location of the mine, the area of hectares of the mining area, and the equipment used when determining the initial location of the mine.

37.84 percent of tin miners in the Bangka Belitung Islands Province have a high school education, 28.11 percent have junior high school education, 26.90 percent have an elementary school education, 6.20 percent have not completed elementary school, and 0.94 percent have a university education. Interestingly, most university-educated workers are in East Belitung Regency (3.3 percent), South Bangka Regency (1.7 percent), and Central Bangka Regency (1.6 percent). These highly educated workers work in mining areas because tin prices are high, and there are no alternative jobs. Miners in South Bangka and Central Bangka Regencies have the highest income for college graduates, IDR3,000,000, while those in Belitung Regency range from IDR1,500,000-IDR2,000,000.

Judging from this general description, based on various perspectives, mining communities have quite strong social capital to create legal awareness of mining activities. At least this can be seen from the summary of the data collection results, including the miners' age, origin, and education. The ages vary; most miners are residents and are dominated by those who have completed secondary and higher education. Their thinking pattern is considered far more rational and uses logic. Moreover, suppose this is utilized and applied collectively for the common interest in efforts to protect and manage the environment. In that case, this aligns with the concept of social capital itself, which arises from the idea that community members may be unable to overcome the various problems they face individually. Still, there must be good togetherness and cooperation. Moreover, as stated by Lang & Hornburg, social capital generally refers to the availability of mutual trust in society (stocks of social trust), norms, and networks that society can utilize to solve common problems (Fathy, 2019).

The basic principle of social capital is that only groups of people with social and cultural values that appreciate the importance of cooperation can advance and develop independently (Syahra, 2003). Several experts then confirm this meaning. Hanifan, for example, stated that in social capital, there is goodwill, friendship, mutual sympathy, social relations, and close cooperation between individuals and families that form a social group. Meanwhile, Bourdieu sees social capital as a resource in individuals and groups connected in a network, which are related in institutional and non-institutional relations, and mutually benefit one another (Dollu & Tokan, 2020).

4. Mining Community Knowledge and Perceptions of Environmental Legal Aspects

Since the issuance of Law of the Republic of Indonesia Number 23 of 2014 concerning Local Government, regency/municipality governments no longer have authority to administer forestry, maritime affairs, and energy and mineral resources, including in terms of issuing mining permits, shifting to the central government and provincial governments through provisions of Article 14 paragraph (1) of Law of the Republic of Indonesia Number 23 of 2014 (Wulandari & Fahrozi, 2021). Normatively, regulations provide space for anyone to mine tin as long as, administratively, it meets predetermined requirements, including having a Mining Business Permit.

One of the human rights of every Indonesian citizen, as mandated in Article 28H of the 1945 Constitution of the Republic of Indonesia, is the right to a good and healthy environment. In addition, the declining quality of the environment has threatened the survival of humans and other living things, so it is necessary to protect and manage the environment seriously and consistently by all stakeholders. These are some of the considerations underlying the birth of Law of the Republic of Indonesia Number 32 of 2009 concerning Environmental Protection and Management. This is certainly very relevant to the purpose of agreeing on this regulation, which is to guarantee legal certainty and provide protection for the right of everyone to get a good and healthy environment as part of protecting the entire ecosystem.

Tin mining in the Bangka Belitung Islands is closely related to environmental aspects. Based on location, 79.29 percent of tin mining in the Bangka Belitung Islands Province is carried out on land, 17.86 percent in watersheds, and 2.86 percent in coastal/sea areas. Around 96.7 percent of land mining is carried out by miners in Belitung Regency, as much as 88.3 percent in East Belitung Regency, as much as 86.6 percent in Bangka Regency, 80 percent in Pangkalpinang City, as much as 71.7 percent in Bangka Regency West, as much as 70 percent in Central Bangka Regency and 61.7 percent in South Bangka Regency.

The area of tin mining land in the Bangka Belitung Islands Province is an average of 51.9 percent, covering an area of less than 1 hectare, especially in the Belitung Regency, Pangkalpinang City, and East Belitung Regency. The second largest with an average of 20.7 percent of the mining area of 1 hectare to 1.5 hectares, especially in South Bangka Regency and East Belitung Regency. Only miners in West Bangka Regency (60 percent) perceive the mining area to be more than 2.5 hectares.

From the research results, 83.33 percent of tin mining in the Bangka Belitung Islands Province was carried out without a permit, while only 16.67 percent was carried out with a mining permit. Mining permits as much as 53.3 percent were mostly carried out in East Belitung Regency, 41.7 percent in Bangka Regency, and 21.7 percent in West Bangka Regency. Meanwhile, 100 percent of miners were in South Bangka Regency, Central Bangka, Belitung, and Pangkalpinang City, which does not issue permits to conduct mining activities.

Regarding the perception of tin miners from the Bangka Belitung Islands Province regarding licensing, as much as 28.57 percent said they knew but did not want to be preoccupied with licensing. Then as much as 27.84 percent said they knew but did not understand the procedure, and 27.14 percent said they knew about mining permits. Miners who are very knowledgeable about permits are more in Pangkalpinang City (46.7 percent) and East Belitung Regency (45 percent). Meanwhile, most miners who know about permits but don't want to be preoccupied with managing permits are in Belitung Regency (63.3 percent) and Bangka Regency (43.3 percent). As many as 33.4 percent of miners in Central Bangka Regency answered that they knew nothing about licensing.

Tin miners of the Bangka Belitung Islands Province, as much as 54.51 percent perceived that so far, there had never been and there was no socialization regarding tin mining permits, especially in Belitung Regency, South Bangka Regency, and Central Bangka Regency. Then as many as 18.34 percent perceived the socialization of this permit had never invited miners to attend the activity, especially according to miners in West Bangka Regency. There was 12.16 percent who had participated in socialization but did not understand and were still confused about the licensing procedure, especially experienced by miners in Pangkalpinang City and Bangka Regency.

33.34 percent of tin miners from the Bangka Belitung Islands Province revealed that the mining location was carried out because of other miners, then 25.94 percent determined the location of the mine using a detection tool, and 21.67 percent used the luck factor. The pattern of determining mine location points based on other miners' participation is mostly made by Pangkalpinang City and South Bangka Regency miners. At the same time, those who use location checking with equipment are mostly done by miners in East Belitung Regency and West Bangka Regency.

Miners who determine mining locations based on chance are mostly done by miners in Belitung Regency. Miners in Bangka Regency determine the location of the mine. In addition to joining other miners, it is also determined by the instructions of the mine owner/boss. Apart from using equipment to check mine locations, Miners in Central Bangka Regency follow along with other miners.

Tin miners in the Bangka Belitung Islands Province, on average 56.5 percent, determine one point of excavation location before moving to another location for 1 to 3 months, especially for miners in Belitung Regency, South Bangka Regency, Central Bangka Regency, Pangkalpinang City, and West Bangka Regency. About 29 percent of other miners determine the location of one point before moving to another location for 3 to 6 months, especially for miners in Bangka and East Belitung Regencies. This means that the source of tin is still very abundant in the Bangka Belitung Islands Province, so miners do not need years of effort to determine a mine location.

49.30 percent of tin miners in the Bangka Belitung Islands Province know that mining activities damage the environment. However, they still have to do it to make ends meet, especially Belitung and Bangka Regencies miners. Only 14.04 percent knew about the environmental damage caused by mining, and mining activities were included with activities that did not damage the environment, especially in Bangka Regency, South Bangka Regency, and Pangkalpinang City.

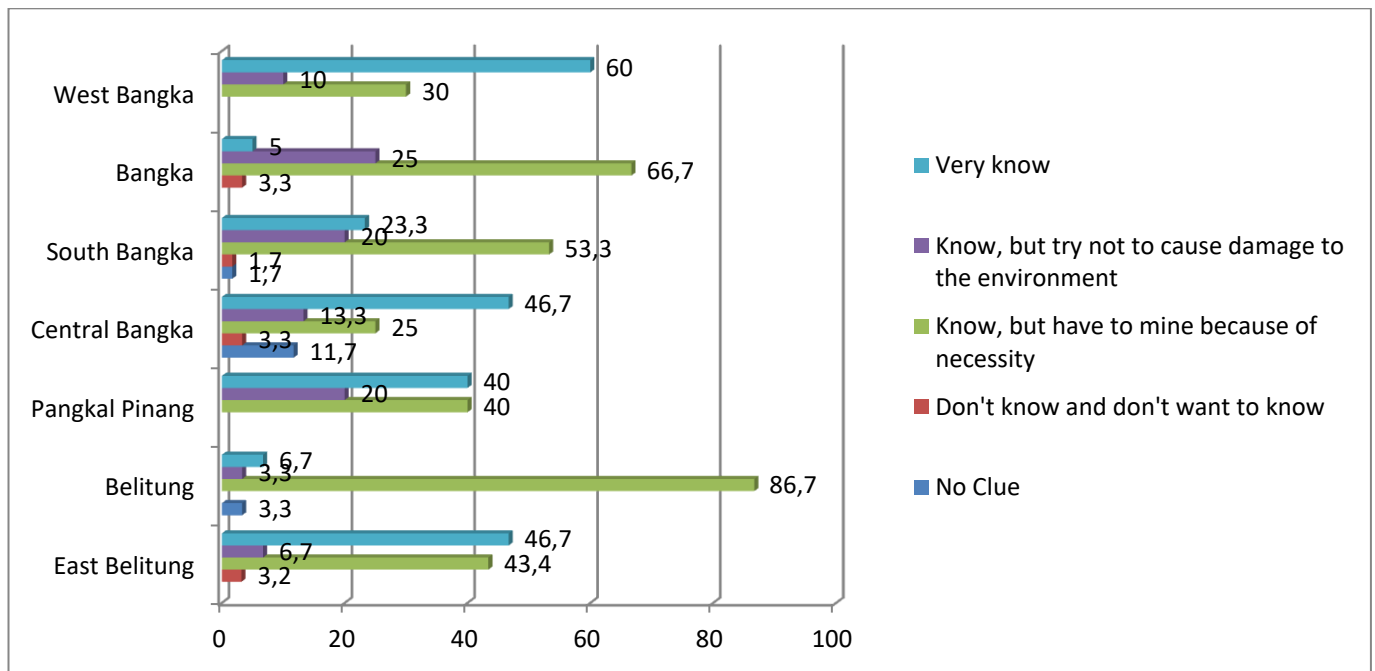


Figure 1. Perception of Tin Mining Damage to the Environment

The perception of tin miners in the Bangka Belitung Islands Province states that tin mining activities can disturb the habitat of living things by 35.49 percent, specifically stated by miners from Belitung Regency and East Belitung Regency. The second impact of environmental damage from mining activities is that it can cause natural disasters (29.76 percent). In particular, miners from Pangkalpinang City, Bangka Regency, and West Bangka Regency conveyed the highest perception.

Only 4.29 percent of miners made environmental improvements after mining activities but were unsuccessful, especially those carried out by Pangkalpinang City, Bangka Regency, and East Belitung Regency miners. Meanwhile, as many as 13.57 percent of miners have made environmental improvements, especially those carried out mostly by miners in West Bangka Regency. But as many as 40.46 percent did not make improvements due to funding/facilities/knowledge constraints, and 31.20 percent did not even make any improvements.

The tin miners stated that it was the miners who should repair the ex-mining land (30 percent) and the mine owners (26.44 percent), followed by the Local Village Government (19.76 percent) and the Environment Agency (10.96 percent). Only 12.84 percent thought that ex-mining land did not need to be repaired, let it go, especially miners in Central Bangka Regency (46.7 percent).

The hope for reclamation of the environment damaged by tin mining is very large for miners, namely 47.61 percent, especially for miners in Pangkalpinang City, Belitung Regency, West Bangka Regency, and East Belitung Regency. Meanwhile, 25.71 percent thought that the environment damaged by tin mining could be used as an alternative for other economic activities, especially for miners in Bangka Regency. However, 11.69 percent and 10.94 percent thought that the environment damaged by mining should be left alone because it would get better later, and they felt that the damage was not the miners' business.

Miners who intend to improve the environment due to tin mining are only 27.86 percent, and miners express the highest opinion in South Bangka and West Bangka Regencies. The second most opinion (24.77 percent) was that miners wanted to repair the damaged

environment, but other miners should also do so, especially those from East Belitung and Bangka Regencies. The third opinion (23.56 percent) had no intention of improving the environment but looked at the conditions later. In particular, this opinion was the highest expressed by Belitung and Central Bangka Regencies miners. Miners confused about where to start with an environmental improvement plan have as many as 16.66 percent, most of which are in Pangkalpinang City.

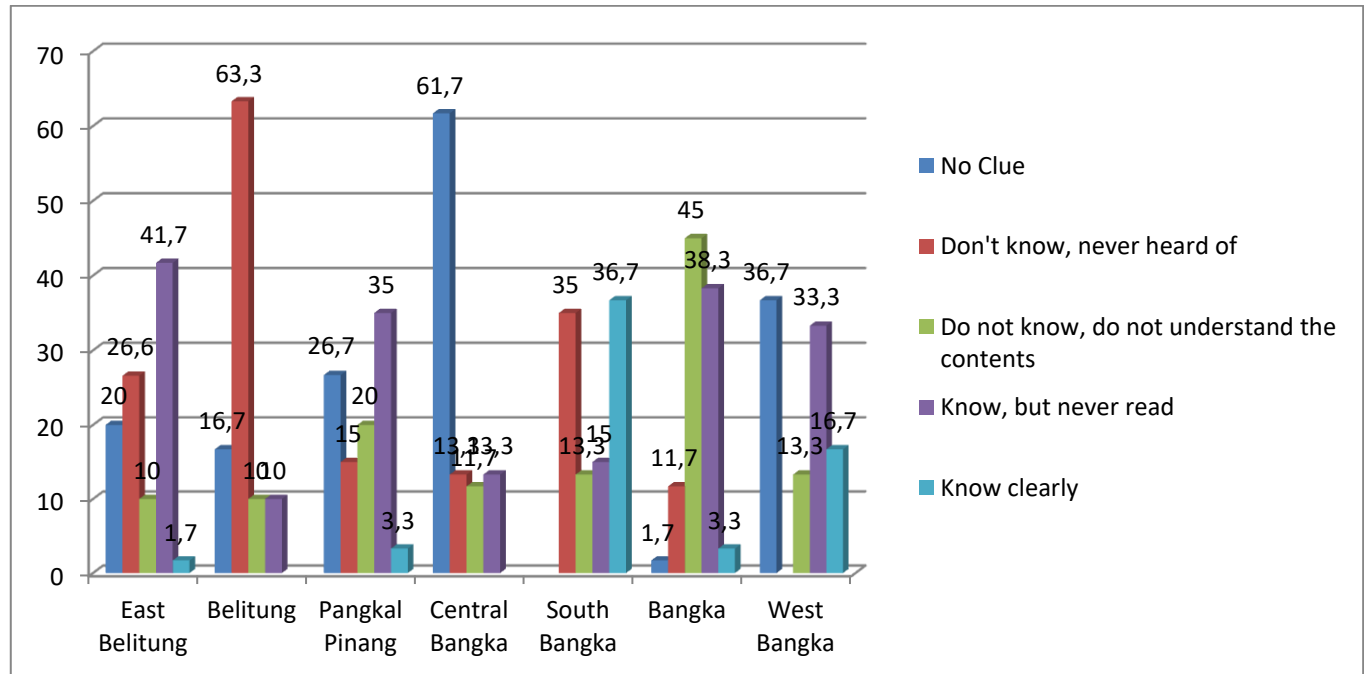


Figure 2. Perceptions of Tin Mining in the Bangka Belitung Islands Province Regarding Environmental Law

As much as 29.5 percent of tin miners in the Bangka Belitung Islands Province know about the Environmental Law but have never read it, especially miners in East Belitung Regency, Bangka Regency, and West Bangka Regency. Meanwhile, 28.6 percent did not know the Environmental Law, especially miners in Central Bangka Regency. Some miners do not know and have never heard of the Environmental Law (20.7 percent), especially miners in Belitung Regency (63.3 percent). Miners who know the Law on the Environment, namely around 16.7 percent, are in West Bangka Regency.

Tin miners of 41.2 percent know very well that if they damage the environment, they can be subject to sanctions, especially miners in East Belitung Regency, Pangkalpinang City, South Bangka Regency, and Central Bangka Regency. Meanwhile, as many as 24.5 percent thought they did not know what punishment would be given if they damaged the environment but had heard of it, especially for miners in Belitung Regency. According to miners in West Bangka Regency, as much as 50 percent think that knowing the law damages the environment, but no mining activity has ever been legally processed.

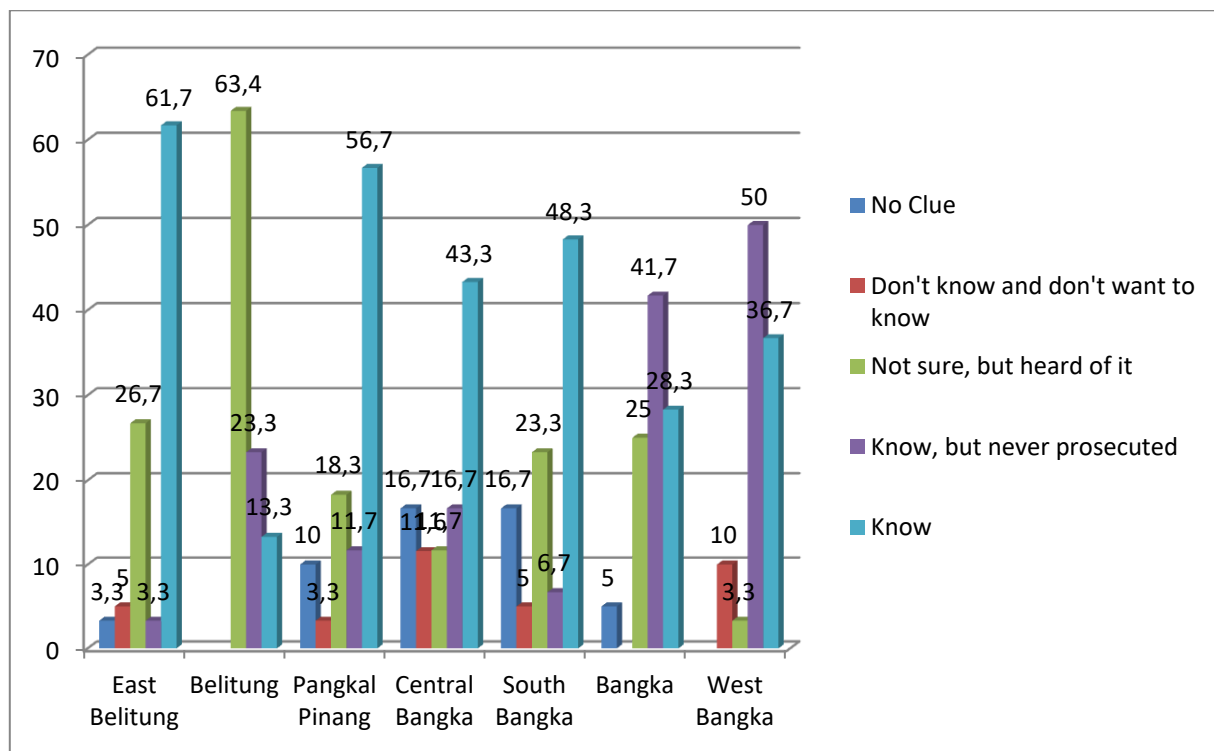


Figure 3. Perceptions of Tin Mining in the Bangka Belitung Islands Province Regarding Law Enforcement

During tin mining activities, as many as 40 percent of miners in Bangka Belitung Islands Province revealed that they had never been caught in a raid by law enforcement officers, especially in Belitung Regency. Some of them, namely 26.4 percent, had been raided by law enforcement but only received warnings, especially from miners in Bangka and West Bangka Regencies. Meanwhile, another 20.5 percent of miners said they had never been caught in a raid by the authorities because they had previously received information about this activity, especially in Pangkalpinang City and East Belitung Regency.

5. Other Jobs Apart from Mining; Initiative and Perception of Alternatives

If averaged from the results of the answers to the reasons for mining tin in the Bangka Belitung Islands Province, as many as 37.14 percent answered because there were no other alternative jobs, and 33.58 percent answered because the price of tin was high. Because there was no alternative job, mining was answered by 66.7 percent of miners in West Bangka Regency, 58.3 percent of miners in Central Bangka Regency, and 51.7 percent of miners in South Bangka Regency. Meanwhile, 50 percent of miners from Pangkalpinang City, 48.3 percent from Bangka Regency, and 46.7 percent from Belitung Regency chose mining activities because of the high tin price.

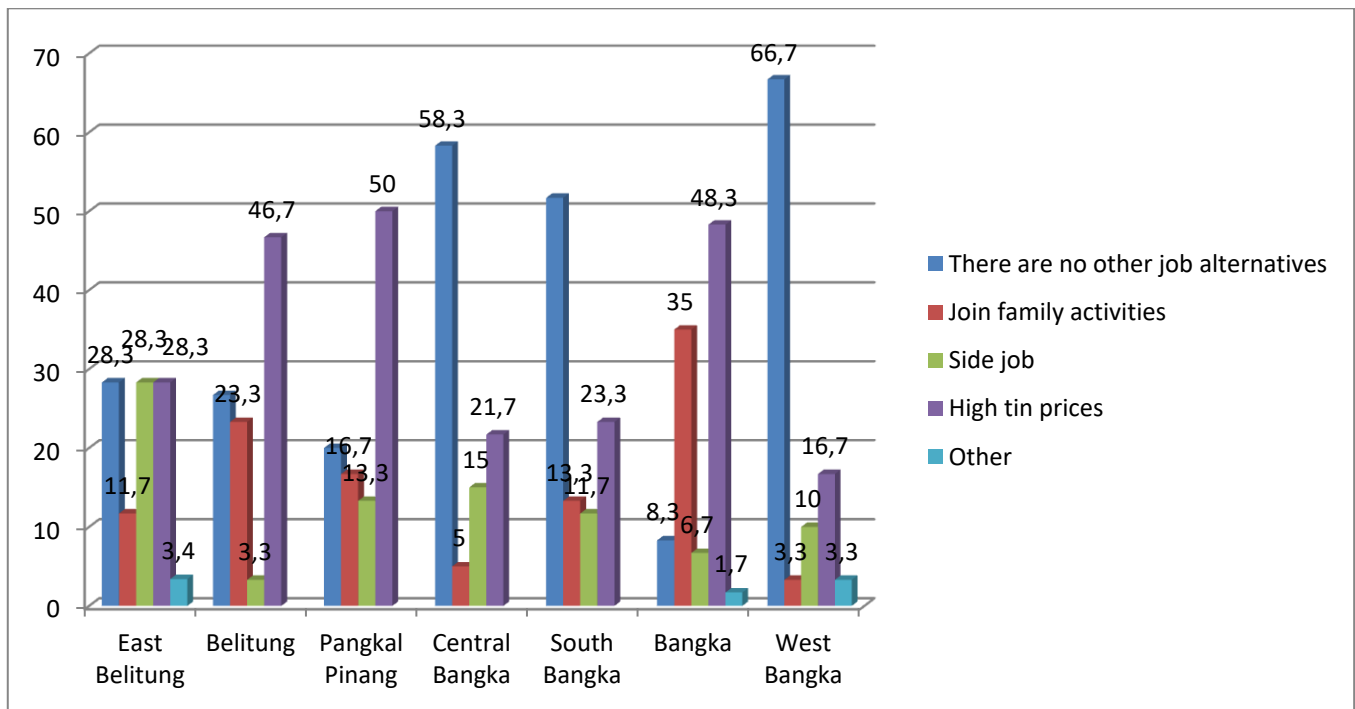


Figure 4. Reasons for Conducting Tin Mining in the Bangka Belitung Islands Province

The work performed by the tin miners of the Bangka Belitung Islands Province amounted to 28.30, which varied, namely, those who worked as day laborers and drivers who were still in school and even unemployed. Meanwhile, 24.76 percent and 21.46 percent worked as farmers/gardeners and fishermen. The highest number of tin miners who were formerly farmers/gardeners were in South Bangka Regency, namely 71.7 percent. Meanwhile, 66.7 percent of tin miners who previously had the most variety of jobs were in Belitung Regency. Mining workers who previously worked as fishermen were 43.4 percent in West Bangka Regency. The profession of tin miners who were previously traders was 43.4 percent in Pangkalpinang City. Meanwhile, 36.7 percent of tin miners working as employees are in East Belitung Regency.

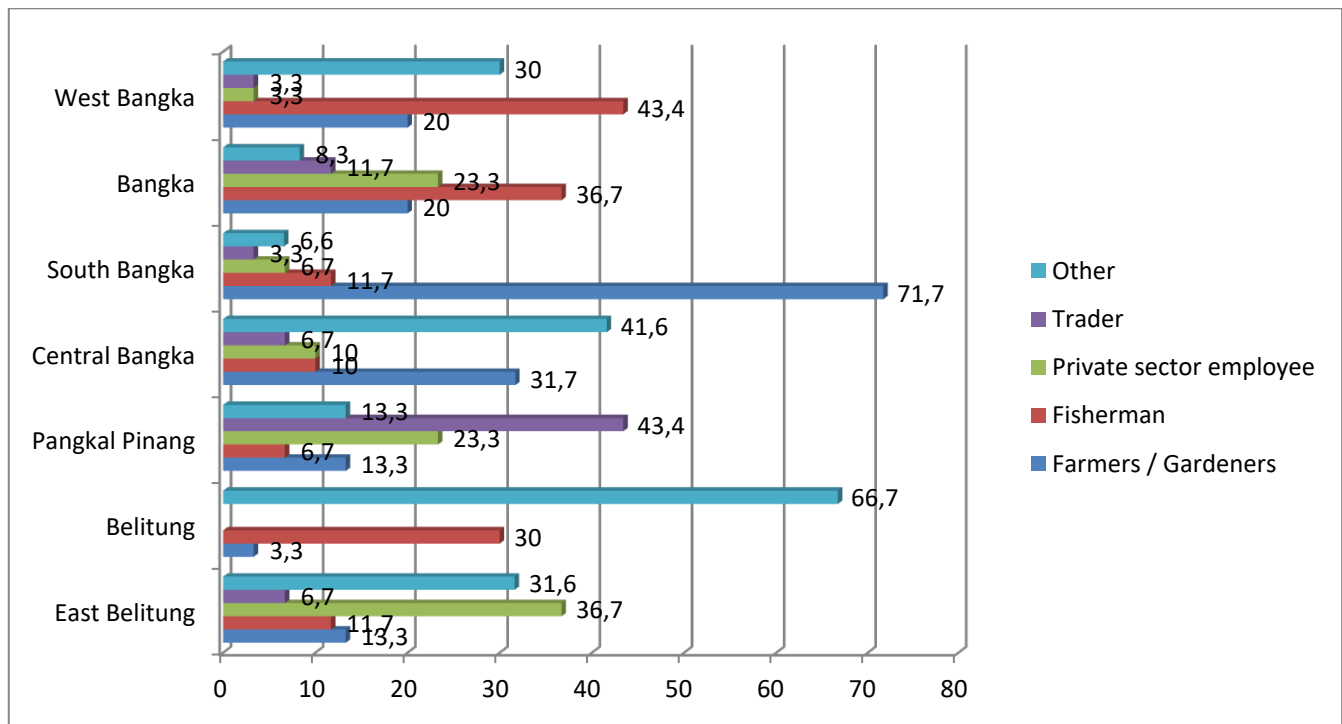


Figure 5. Work before tin mining in Bangka Belitung Islands Province

So far, the job of a tin miner is still promising, as seen by 38.1 percent of miners still considering changing professions. Still, by looking at the good situation of rising tin prices and future opportunities, this answer was conveyed by miners in South Bangka Regency, Pangkalpinang City, Bangka Regency, Belitung, and East Belitung. Meanwhile, 26.4 percent desired to change jobs, particularly from West Bangka and Central Bangka Regencies miners. As much as 14.3 percent still depend on the tin as the main source of family income, stated explicitly by miners from West Bangka and Central Bangka Regencies. The profession as a tin miner will be abandoned if tin is no longer in the Bangka Belitung Islands Province, said 13.8 percent, especially miners in Belitung Regency.

In the end, most of the mining is carried out without a permit, and most mining actors know that the mining activities that are carried out damage the environment, but the demands of life make them ignore this ecological impact. That means miners in this context are still in the attitude of anthropocentrism, viewing that humans are the center of the universe and have the right to make nature an object to be exploited for the benefit of humans. The opposite of ecocentrism is making nature the center, so human behavior must align with natural needs (Sulaeman et al., 2021). Moreover, most also admit that mining activities destroy the habitat of living things. This is contrary to most who realize that damaging the environment can be subject to sanctions. However, so far, no one has ever been legally prosecuted.

6. Conclusion

The research results show that most of the mining in the Bangka Belitung Islands is carried out without permits. In principle, the mining community knows, at least has heard of, regulations in the mining sector. Mining actors also know that a permit should be obtained, but most do not want to deal with this matter. Moreover, most think there has never been, and there has been no socialization regarding, tin mining permits. In addition, most of them also know that their mining activities damage the environment, but the demands of life make them ignore this ecological impact. Most also admit that mining activities destroy the habitat of living

things. These findings become even more contradictory when related to the knowledge of those who are mostly well aware that if they damage the environment, they can be subject to sanctions. Moreover, so far, no one has ever been prosecuted legally. This confirms that awareness of environmental law in mining activities in the Bangka Belitung Islands has not been used as strategic social capital in protecting and managing the environment.

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8. Declaration of Conflicting Interests

The authors have declared no potential conflicts of interest concerning this article's research, authorship, and/or publication.

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